

CITY OF FLAGSTAFF

Community Greenhouse Gas Emissions Report 2015 - 2016



Executive Summary

The City of Flagstaff is committed to taking meaningful climate change action.

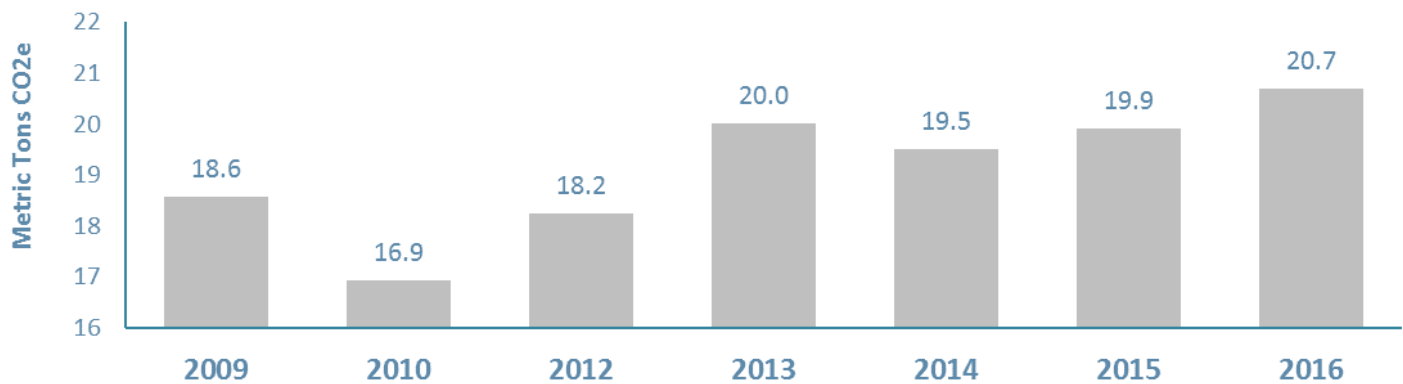
Tracking trends in our greenhouse gas emissions and resource consumption is one way to identify our contribution to climate change. The first step toward mitigating our impact is knowing where we are now. This report is used to track and outline emissions for the entire Flagstaff community every two years.

WHAT WE TRACK

- ⇒ **Electricity** consumption for residential, commercial, and industrial sectors
- ⇒ **Natural Gas** consumption for residential, commercial, and industrial sectors
- ⇒ **Gasoline** and **Diesel** fuel consumed by Flagstaff community
- ⇒ Tons of **waste** sent to landfill

Metric Tons Per Capita Carbon Dioxide Equivalents (CO₂e)*

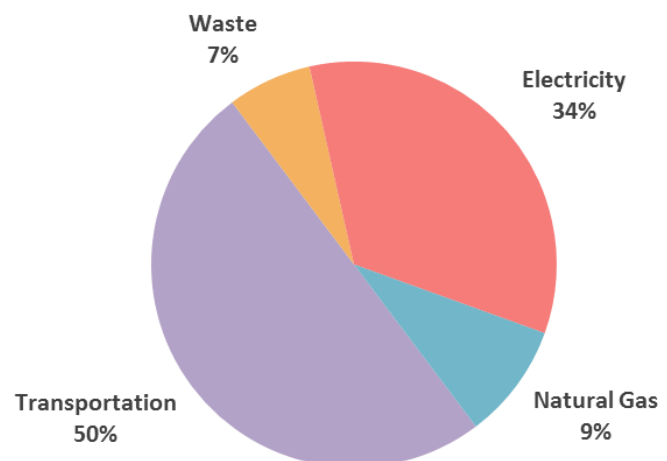
The emissions per capita metric helps us to understand changes in our emissions while accounting for population changes. There has been an upward trend in per capita emissions in the Flagstaff Community over the last seven years, indicating we have many opportunities for improvement moving forward.



*CO₂e means “carbon dioxide equivalents,” and is the standard translation of all types of greenhouse gases into the amount of carbon dioxide which would create the same amount of climate change potential.

2015-2016 Breakdown Emissions by Source

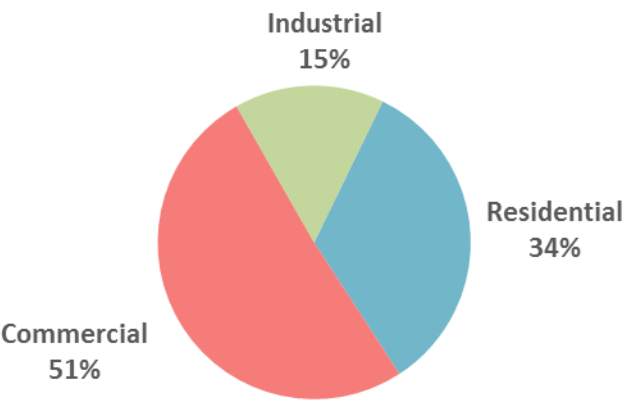
This pie graph shows what sources contribute most to our total greenhouse gas emissions and is broken up into the four categories by listed above. Where possible, we also track emissions by residential, commercial, and industrial sectors. Sector breakdowns are available for the emissions from electricity and natural gas usage on the net page; transportation and waste emissions are not divided by industry at this time. See the “Moving Forward” section at the end of this report for more information on emissions this report does not account for.



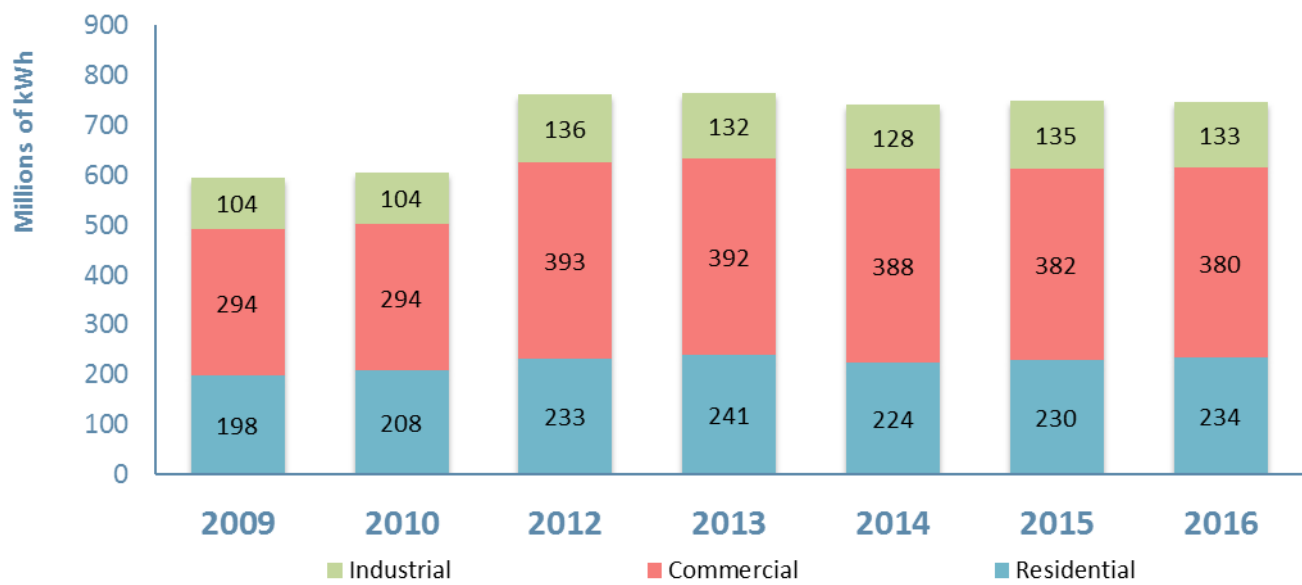
Percentage of emissions by source in 2015 and 2016. Our total reported emissions were 1,424,562.96 metric tons of CO₂e.

Energy Consumption

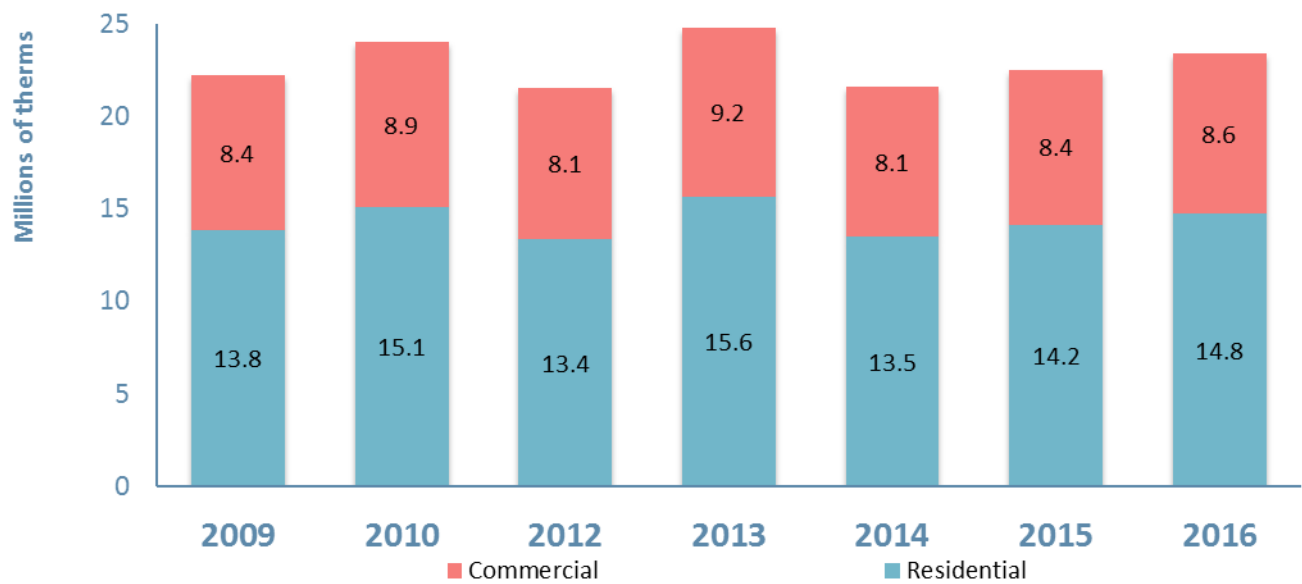
Considering billed electricity and natural gas usage aids us in determining what trends and patterns are evident in our energy usage over time. We receive this data from APS and Unisource and it encompasses all electricity and natural gas purchased in the Flagstaff community. The 2015-16 data shows fairly consistent usage in all sectors compared to the past five years



Electricity: Kilowatt Hours Consumed



Natural Gas: Therms Consumed*

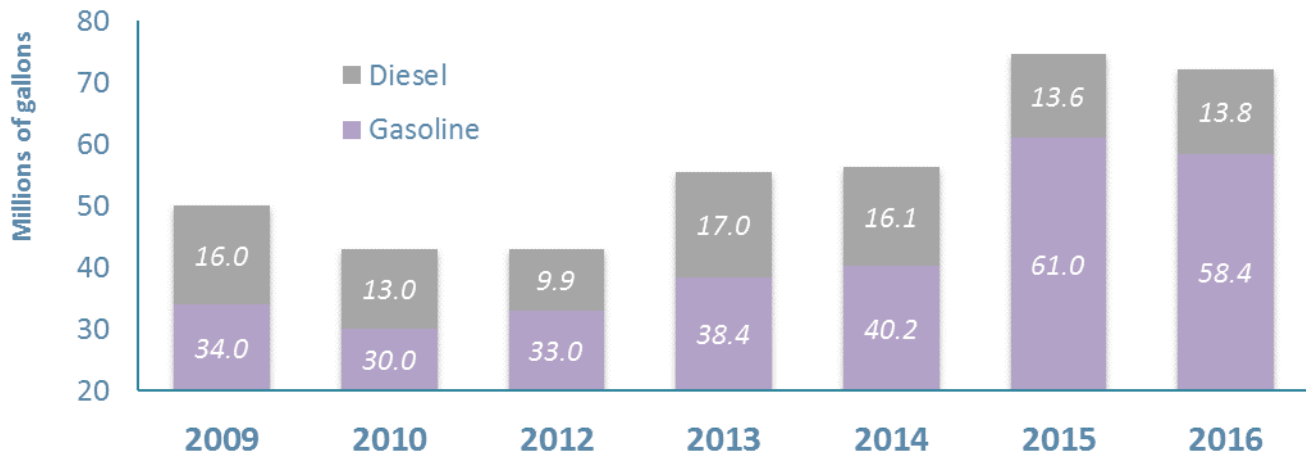


*Industrial consumption of natural gas is not included in this graph as the impact was negligible (with an average of 0.08% of the totals for years reported).

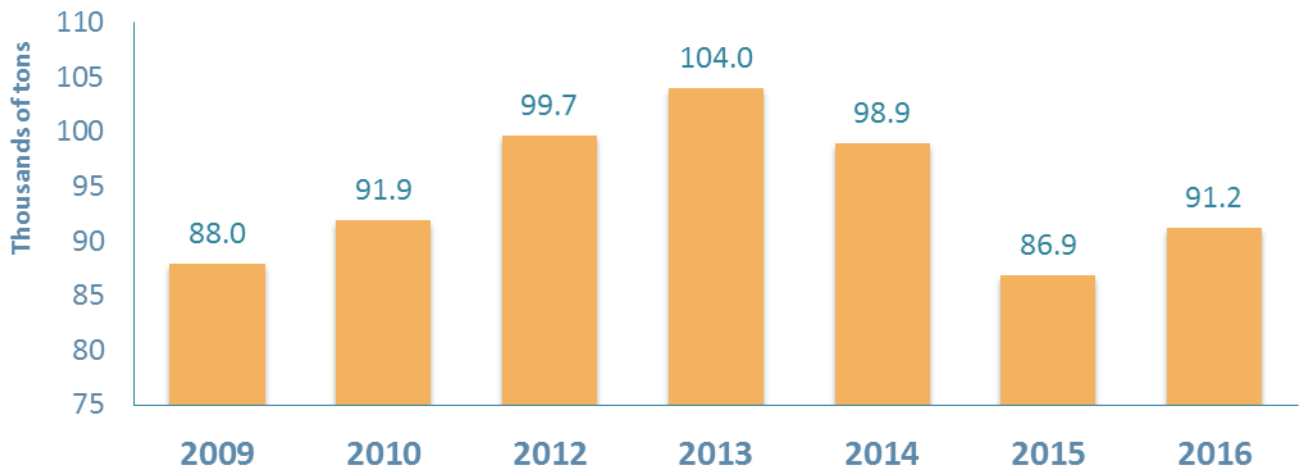
Transportation and Waste

Emissions associated with fossil fuel burning and landfill waste both contribute to our overall impact. See below for recent trends regarding fuel purchased in Flagstaff and quantity of waste sent to the landfill.

Gallons of Gasoline and Diesel Consumed



Tons of Waste Sent to Landfill



Moving Forward

Flagstaff's emissions are not just from energy and fuel. The food we eat and the items we buy contribute to emissions during production, transportation, and processing. These impacts are difficult to estimate on a community scale. Individuals can learn more about personal emissions by using a [carbon footprint calculator](#).

As we strive to better account for our community's emissions and take meaningful climate action, the City of Flagstaff has invested in greenhouse gas accounting software and tracking criteria to increase awareness and understanding of what our current impacts are and where we should focus our future efforts.

In the fall of 2017, the City of Flagstaff will begin working with community members, local businesses, and partner institutions to develop Flagstaff's first Climate Action and Adaptation Plan. The Plan will help our community to set goals to reduce greenhouse gas emissions and adapt to the changing climate. For more information or to get involved, please visit www.flagstaff.az.gov/climate.

For more information about our emissions data and sources, please contact sustainability@flagstaffaz.gov.